

**WHAT IS CLAIMED IS:**

- 1 1. A method for internationalizing content of an electronic document comprising:  
2 associating a predefined parameter with content in a source web page to be  
3 translated; and  
4 inserting entries corresponding to translations of the content in the source web  
5 page into an indexable dictionary file,  
6 wherein a dictionary driven stylesheet may be applied to the source web page in  
7 order to retrieve a translation of a particular text string from the indexable dictionary file.
- 1 2. The method of claim 1, wherein the associating step comprises associating an  
2 NLSID with textual content in the source web page to be translated, the NLSID being  
3 associated with the textual content in markup language code supporting the source web  
4 page.
- 1 3. The method of claim 1, wherein inserting entries comprises:  
2 locating a root entry corresponding to the source web page;  
3 inserting a sub-root entry corresponding to a term to be translated; and  
4 inserting at least one translation entry as a sub-entry of the sub-root entry.
- 1 4. The method of claim 1, wherein the application of the dictionary driven stylesheet  
2 comprises:  
3 locating textual content having the predefined parameter associated therewith in  
4 the source web page;  
5 indexing into the dictionary file to find a root entry corresponding to the  
6 predefined parameter;  
7 indexing into sub-root entries to find an entry corresponding to the textual  
8 content; and  
9 indexing into children of the sub-root entries to find a translation entry for textual content.

- 1 5. The method of claim 4, wherein the step of indexing into the children of the sub-  
2 root entries further comprises:  
3 determining a target language; and  
4 indexing into the children of the sub-root entry to find a child entry corresponding  
5 to the target language.
- 1 6. The method of claim 4, wherein the step of indexing into the dictionary file  
2 further comprises indexing into the dictionary file to find a root entry that matches an  
3 NLSID associated with the textual content.
- 1 7. The method of claim 1, the method further comprising the steps of:  
2 generating the indexable dictionary file with a markup language; and  
3 generating the generic dictionary driven stylesheet with a markup language.
- 1 8. The method of claim 7, wherein the indexable dictionary file further comprises at  
2 least one root entry corresponding to an NLSID associated with a portion of text to be  
3 translated from the source web page, at least one sub-root entry corresponding to the text  
4 to be translated, and at least one child sub-root entry corresponding to the available  
5 translations for the portion of text.
- 1 9. The method of claim 7, wherein the dictionary driven stylesheet further comprises  
2 at least one template match operation configured to copy all untouched nodes from a  
3 source document to a destination document, and at least one template match statement  
4 configured to translate text in the source document via access into the indexable  
5 dictionary file.
- 1 10. The method of claim 1, wherein the electronic document further comprises a web  
2 page.

1 11. The method of claim 1, wherein the stylesheet further comprises a generic  
2 dictionary driven stylesheet that may be reused for various applications.

1 12. A method for translating text in an electronic document comprising:  
2 inserting a predetermined parameter into a source code of the electronic  
3 document, the predetermined parameter indicating that an associated portion of text is to  
4 be translated;  
5 inserting an entry representing a translation of the associated portion of text into  
6 an electronic dictionary file; and  
7 applying a dictionary driven generic stylesheet to the electronic document in order  
8 to retrieve the translation of the associated portion of text.

1 13. The method of claim 12, wherein the step of inserting a predetermined parameter  
2 comprises:  
3 determining what portions of text are to be translated in a source document; and  
4 associating an NLSID with the portions of text determined to be translated in the  
5 source document, the NLSID being associated with the portions of text to be translated in  
6 the source code of the source document.

1 14. The method of claim 12, wherein the source code further comprises a markup  
2 language code set.

1 15. The method of claim 14, wherein the markup language code set further comprises  
2 at least one of a hypertext markup language code set and an extensible markup language  
3 code set.

1 16. The method of claim 12, wherein the step of inserting an entry into an electronic  
2 dictionary file further comprises:  
3 locating a root entry in the electronic dictionary file corresponding to the

4 predetermined parameter;  
5 inserting a sub-root entry corresponding to the portion of text to be translated; and  
6 inserting at least one sub-root child entry, wherein each sub-root child entry  
7 corresponds to a translation of the portion of text in a particular language.

1 17. The method of claim 16, wherein the locating step further comprises locating a  
2 root entry in the electronic dictionary file corresponding to an NLSID associated with the  
3 portion of text to be translated.

1 18. The method of claim 12, wherein the step of applying a dictionary driven  
2 generic stylesheet comprises:  
3 determining at least one portion of text in a source document having the  
4 predetermined parameter associated therewith;  
5 searching in the electronic dictionary file to find a root entry corresponding to the  
6 predetermined parameter;  
7 searching in sub-root entries of the electronic dictionary to find an entry  
8 corresponding to the portion of text to be translated; and  
9 searching in children of the sub-root entries in the electronic dictionary to find a  
10 translation entry for textual content.

1 19. The method of claim 18, wherein determining at least one portion of text having  
2 the predetermined parameter associated therewith further comprises indexing into the  
3 source code of an electronic document to locate text having an NLSID associated  
4 therewith.

1 20. The method of claim 18, wherein searching in the electronic dictionary file to find  
2 a root entry further comprises indexing into the electronic dictionary file with an NLSID  
3 to find a root entry match.

1 21. The method of claim 18, wherein searching in children of the sub-root entries  
2 further comprises indexing into the children of the sub-root entries with a preferred  
3 language parameter to find a match.

1 22. A computer readable medium storing a software program that, when executed by  
2 a computer, causes the computer to perform a method comprising:  
3 associating a predefined parameter with content in a source web page to be  
4 translated;  
5 inserting entries corresponding to translations of the content in the source web  
6 page into an indexable dictionary file; and  
7 applying a generic dictionary driven stylesheet to the source web page, wherein  
8 the application of the stylesheet operates to retrieve a translation of a particular text string  
9 from the indexable dictionary file.

1 23. The computer readable medium of claim 22, wherein the associating step  
2 comprises associating an NLSID with textual content in the source web page to be  
3 translated, the NLSID being associated with the textual content in markup language code  
4 supporting the source web page.

1 24. The computer readable medium of claim 22, wherein inserting entries comprises:  
2 locating a root entry corresponding to the source web page;  
3 inserting a sub-root entry corresponding to a term to be translated; and  
4 inserting at least one translation entry as a sub-entry of the sub-root entry.

1 25. The computer readable medium of claim 22, wherein applying a generic  
2 dictionary driven stylesheet comprises:  
3 searching through the source web page to find textual content having the  
4 predefined parameter associated therewith;  
5 indexing into the dictionary file to find a root entry corresponding to the

6 predefined parameter;  
7 indexing into sub-root entries to find an entry corresponding to the textual  
8 content; and  
9 indexing into children of the sub-root entries to find a translation entry for textual  
10 content.

1 26. The computer readable medium of claim 25, wherein the step of indexing into the  
2 children of the sub-root entries further comprises:  
3 determining a target language; and  
4 indexing into the children of the sub-root entry to find a child entry corresponding  
5 to the target language.

1 27. The computer readable medium of claim 25, wherein the step of indexing into the  
2 dictionary file further comprises indexing into the dictionary file to find a root entry that  
3 matches an NLSID associated with the textual content.

1 28. The computer readable medium of claim 22, the method further comprising the  
2 steps of:  
3 generating the indexable dictionary file with a markup language; and  
4 generating the generic dictionary driven stylesheet with a markup language.

1 29. The computer readable medium of claim 28, wherein the step of generating the  
2 indexable dictionary file further comprises creating the indexable dictionary file, wherein  
3 the dictionary file includes at least one root entry corresponding to an NLSID associated  
4 with a portion of text to be translated from the source web page, at least one sub-root  
5 entry corresponding to the text to be translated, and at least one child sub-root entry  
6 corresponding to the available translations for the portion of text.

1 30. The computer readable medium of claim 28, wherein the step of generating the

2 generic dictionary driven stylesheet further comprises creating the generic dictionary  
3 driven stylesheet, wherein the generic dictionary driven stylesheet includes at least one  
4 template match operation configured to copy all untouched nodes from a source  
5 document to a destination document, and at least one template match statement configured  
6 to translate text in the source document via access into the indexable dictionary file.

1 31. A computer readable medium storing a software program that, when executed by  
2 a processor, causes the processor to perform a method comprising:

3 inserting a predetermined parameter into a source code of the electronic  
4 document, the predetermined parameter indicating that an associated portion of text is to  
5 be translated;

6 inserting an entry representing a translation of the associated portion of text into  
7 an electronic dictionary file; and

8 applying a dictionary driven generic stylesheet to the electronic document in order  
9 to retrieve the translation of the associated portion of text.

1 32. The computer readable medium of claim 31, wherein the step of inserting a  
2 predetermined parameter comprises:

3 determining what portions of text are to be translated in a source document; and

4 associating an NLSID with the portions of text determined to be translated in the  
5 source document, the NLSID being associated with the portions of text to be translated in  
6 the source code of the source document.

1 33. The computer readable medium of claim 31, wherein the source code further  
2 comprises a markup language code set.

1 34. The computer readable medium of claim 33, wherein the markup language code  
2 set further comprises at least one of a hypertext markup language code set and an  
3 extensible markup language code set.

1 35. The computer readable medium of claim 31, wherein the step of inserting an entry  
2 into an electronic dictionary file further comprises:

3 locating a root entry in the electronic dictionary file corresponding to the  
4 predetermined parameter;

5 inserting a sub-root entry corresponding to the portion of text to be translated; and

6 inserting at least one sub-root child entry, wherein each sub-root child entry  
7 corresponds to a translation of the portion of text in a particular language.

1 36. The computer readable medium of claim 35, wherein the locating step further  
2 comprises locating a root entry in the electronic dictionary file corresponding to an  
3 NLSID associated with the portion of text to be translated.

1 37. The computer readable medium of claim 31, wherein the step of applying a  
2 dictionary driven generic stylesheet comprises:

3 determining at least one portion of text in a source document having the  
4 predetermined parameter associated therewith;

5 searching in the electronic dictionary file to find a root entry corresponding to the  
6 predetermined parameter;

7 searching in sub-root entries of the electronic dictionary to find an entry  
8 corresponding to the portion of text to be translated; and

9 searching in children of the sub-root entries in the electronic dictionary to find a  
10 translation entry for textual content.

1 38. The computer readable medium of claim 37, wherein determining at least one  
2 portion of text having the predetermined parameter associated therewith further comprises  
3 indexing into the source code of an electronic document to locate text having an NLSID  
4 associated therewith.

1 39. The computer readable medium of claim 37, wherein searching in the electronic

2 dictionary file to find a root entry further comprises indexing into the electronic  
3 dictionary file with an NLSID to find a root entry match.

1 40. The computer readable medium of claim 37, wherein searching in children of the  
2 sub-root entries further comprises indexing into the children of the sub-root entries with a  
3 preferred language parameter to find a match.

1 41. An apparatus for translating text in electronic documents, the apparatus  
2 comprising a memory having a translation program stored therein, and a processor in  
3 communication with the memory, wherein the processor is configured to execute the  
4 program stored in the memory, the computer program being configured to:

5 determine at least one portion of text in a source document having the  
6 predetermined parameter associated therewith;

7 search in an electronic dictionary file to find a root entry corresponding to the  
8 predetermined parameter;

9 search in sub-root entries of the electronic dictionary to find an entry  
10 corresponding to the portion of text to be translated; and

11 search in children of the sub-root entries in the electronic dictionary to find a  
12 translation entry for textual content.

1 42. The apparatus of claim 41, wherein determining at least one portion of text having  
2 the predetermined parameter associated therewith further comprises indexing into the  
3 source code of an electronic document to locate text having an NLSID associated  
4 therewith.

1 43. The apparatus of claim 41, wherein searching in the electronic dictionary file to  
2 find a root entry further comprises indexing into the electronic dictionary file with an  
3 NLSID to find a root entry match.

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Express Mail No. EL684621189US

- 1 44. The apparatus of claim 41, wherein searching in children of the sub-root entries
- 2 further comprises indexing into the children of the sub-root entries with a preferred
- 3 language parameter to find a match.

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